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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/051,230	01/22/2002	Shinichi Kawamura	218335US0CONT	8868

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EXAMINER

RODEE, CHRISTOPHER D

ART UNIT	PAPER NUMBER
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1756

6

DATE MAILED: 09/04/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

A 26

Office Action Summary

Application No.

10/051,230

Applicant(s)

KAWAMURA ET AL.

Examiner

Christopher D RoDee

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 August 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-42 is/are pending in the application.
- 4a) Of the above claim(s) 1-16, 21, 24-30, 34, 36, 40 and 42 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 17-20, 22, 23, 31-33, 35, 37-39 and 41 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. 09/610,427.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 26 August 2002 has been entered. The submission contains an IDS. No amendments have been presented concerning the rejections previously applied.

Election/Restrictions

Applicant's election with traverse of group II, and polycarbonate #1 (p. 90) in Paper No. 3 is acknowledged. The restriction and election remain in effect for the reasons given in the last Office action, Paper No. 4, pages 2-3. No further grounds of traversal were presented in the RCE filing.

The requirement is still deemed proper and is maintained as FINAL.

Claim Rejections - 35 USC § 112

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

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Claims 37-39 and 41 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential elements, such omission amounting to a gap between the elements. See MPEP § 2172.01. The omitted elements are: the structural elements of the process cartridge. The recitation of a photoreceptor alone does not define the requisite components of the process cartridge or their relationship. Applicants' are reminded that a device (i.e., apparatus) is defined by its structure. The instant claims fail to define any structure and particularly fail to define any structure that allows a photoconductor to differ from a process cartridge.

Claim Rejections - 35 USC § 103

Claims 17-20, 22, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ikuno *et al.* in US Patent 5,871,876 in view of Tanaka *et al.* in US Patent 5,976,746.

This rejection was presented in the last Office action, Paper No. 4, pages 4-5, and the description of the rejection is incorporated here by reference. No reasons for traversal or amendment were submitted in the RCE filing so the rejection is maintained.

Claims 31-33, 35, 37-39, and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ikuno *et al.* in US Patent 5,871,876 in view of Tanaka *et al.* in US Patent 5,976,746 as applied to claims 17-20, 22, and 23 above, and further in view of common knowledge in the art.

This rejection was also presented in the last Office action, Paper No. 4, pages 4-5, and the description of the rejection is incorporated here by reference. No reasons for traversal or amendment were submitted in the RCE filing so this rejection is also maintained.

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Claims 17-20, 22, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nagai *et al.* in US Patent 5,840,454. This reference was submitted in the recent IDS filing.

Nagai discloses an electrophotographic photoconductor having an electroconductive support and a photoconductive layer thereon containing a charge transporting polycarbonate having units given by the formulas (I) and (II) (col. 2, l. 11 - col. 4, l. 15; col. 39, l. 31-49; Figure 1). A preferred unit of the formula (I) is formula (IV) (col. 4, l. 31-49), such as the specific unit given at the bottom of column 14. A preferred compound of the formula (II) is 4,4'-dihydroxy-3,3'-dimethyldiphenyl ether (col. 38, l. 41). Example 26 shows a specific polycarbonate having 43 mol % of units corresponding to the formula (I) and 57 mol % of units corresponding to the formula (II). The unit corresponding to the formula (I) is the same as the unit on the left side of the elected species on page 90. Example 28 also discloses a polycarbonate having a formula (I) unit that is the same as the unit on the left side of the elected formula on page 90. This polycarbonate has 39 mol % of units corresponding to the formula (I) and 61 mol % of units corresponding to the formula (II). Also note the similarities in Example 38 and the molar ratios present there.

Nagai does not identically disclose the specific combination of units as given in the elected species in the amounts as elected.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to prepare a polycarbonate for the photoconductive layer in Nagai from specifically disclosed units such as the unit given at the bottom of column 14 for the unit (I) and 4,4'-dihydroxy-3,3'-dimethyldiphenyl ether for the unit (ii) because these units are specifically disclosed by the reference as providing charge transportability and durability to the photoconductive layer when used in the polycarbonate. The artisan would also have found it obvious to use units (I) and (II) in molar percentages near those exemplified, as discussed

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above, because the artisan would expect these values and those nearby (such as 40 % and 60%) to be effective for the photoconductive layer. Exemplification of units and amounts provides specific guidance for the artisan to begin his/her work on optimization of the disclosed invention.

Claims 31-33, 35, 37-39, and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nagai *et al.* in US Patent 5,840,454 as applied to claims 17-20, 22, and 23 above, and further in view of common knowledge in the art.

Nagai does not disclose the specific means of the claimed apparatus. This reference also does not disclose a process cartridge.

The Examiner takes Official Notice, as done throughout prosecution, that electrophotographic apparatuses having the recited means and process cartridges are exceedingly well known in the electrophotographic art. The Examiner also takes Official Notice that these devices are known to have electrophotographic photoconductors capable of forming an electrostatic latent image.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the obvious photoconductor discussed in the rejection of Nagai above in well known electrophotographic apparatuses having the recited means or in a process cartridge because these devices are useful to automate the production of images in both office and home settings.

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Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher D RoDee whose telephone number is 703 308-2465. The examiner can normally be reached on most weekdays from 6 to 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Huff can be reached on 703 308-2464. The fax phone numbers for the organization where this application or proceeding is assigned are 703 872-9310 for regular communications and 703 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 308-0661.

cdr
September 3, 2002


CHRISTOPHER RODEE
PRIMARY EXAMINER